

WHAT IS CLAIMED IS:

1. A system for trading a photo mask used for manufacturing semiconductor devices, comprising:

5 a purchase mediating section configured to exchange information with a mask buyer through a network;

a factory mediating section configured to exchange information with a mask factory;

10 a manufacture order storing section configured to store a mask manufacture order, which is inputted through the purchase mediating section, and includes at least one of design specifications, a quantity, a desired delivery date, and examination specifications of a mask;

15 a line information storing section configured to store line information, which is inputted through the factory mediating section, and includes a processing ability state of a manufacturing line in the mask factory;

20 a price information storing section configured to store price information, which includes relationships between contents of mask manufacture orders and mask trading prices;

25 a calculating section configured to calculate an estimated price and an estimated delivery date of a mask product with reference to the price information and the line information, in response to the mask

manufacture order;

5 a progress selecting section configured to transmit the estimated price and the estimated delivery date to the mask buyer through the purchase mediating section, and allow the mask buyer to select whether to proceed with manufacture of the mask or not; and

10 a manufacture instructing section configured to transmit the mask manufacture order to the mask factory through the factory mediating section, when proceeding with manufacture of the mask is selected.

2. The system according to claim 1, further comprising:

15 an examination data storing section configured to store examination data of the mask product manufactured in the mask factory, the examination data being inputted through the factory mediating section; and

an examination data transmitting section configured to transmit the examination data to the mask buyer through the purchase mediating section.

20 3. The system according to claim 2, wherein the examination data includes a coordinate position and a dimension of a defect generated in the mask product.

25 4. The system according to claim 3, wherein the examination data further includes an optical simulation image of the mask product.

5. The system according to claim 2, further comprising a purchase selecting section configured to

allow the mask buyer, through the purchase mediating section, to select, on the basis of the examination data, whether to buy the mask product or not.

5           6. The system according to claim 5, wherein the purchase selecting section further comprises a portion configured to allow the mask buyer, through the purchase mediating section, to input a desired purchase price of the mask product on the basis of the examination data.

10           7. The system according to claim 2, further comprising:

            a re-manufacture selecting section configured to allow the mask buyer, through the purchase mediating section, to select, on the basis of the examination data, whether to re-manufacture the mask or not; and  
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            a re-manufacture instructing section configured to instruct re-manufacture of the mask to the mask factory through the factory mediating section, when re-manufacture of the mask is selected.

20           8. The system according to claim 2, further comprising:

            a purchase selecting section configured to allow the mask buyer, through the purchase mediating section, to select, on the basis of the examination data, whether to buy the mask product or not; and  
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            a re-manufacture selecting section configured to allow the mask buyer, through the purchase mediating

section, to select, on the basis of the examination data, whether to re-manufacture the mask or not,

wherein the mask buyer is allowed to select purchase of the mask and re-manufacture of the mask at the same time.

9. The system according to claim 8, wherein the purchase selecting section further comprises a portion configured to allow the mask buyer, through the purchase mediating section, to input a desired purchase price of the mask product, on the basis of the examination data.

10. The system according to claim 1, wherein the line information stored in the line information storing section is renewed with a latest line information inputted through the factory mediating section every time a mask manufacture order is inputted.

11. A mask trading method of trading a photo mask used for manufacturing semiconductor devices, using a system including a purchase mediating section configured to exchange information with a mask buyer through a network, and a factory mediating section configured to exchange information with a mask factory, the method comprising:

storing a mask manufacture order, which is inputted through the purchase mediating section, and includes at least one of design specifications, a quantity, a desired delivery date, and examination

specifications of a mask;

storing line information, which is inputted through the factory mediating section, and includes a processing ability state of a manufacturing line in the mask factory;

storing price information, which includes relationships between contents of mask manufacture orders and mask trading prices;

calculating an estimated price and an estimated delivery date of a mask product with reference to the price information and the line information, in response to the mask manufacture order;

transmitting the estimated price and the estimated delivery date to the mask buyer through the purchase mediating section, and allowing the mask buyer to select whether to proceed with manufacture of the mask or not; and

transmitting the mask manufacture order to the mask factory through the factory mediating section, when proceeding with manufacture of the mask is selected.

12. The method according to claim 11, further comprising:

storing examination data of the mask product manufactured in the mask factory, the examination data being inputted through the factory mediating section; and

transmitting the examination data to the mask buyer through the purchase mediating section.

13. The method according to claim 12, wherein the examination data includes a coordinate position  
5 and a dimension of a defect generated in the mask product.

14. The method according to claim 13, wherein the examination data further includes an optical simulation image of the mask product.

10 15. The method according to claim 12, further comprising allowing the mask buyer, through the purchase mediating section, to select, on the basis of the examination data, whether to buy the mask product or not.

15 16. The method according to claim 15, further comprising allowing the mask buyer, through the purchase mediating section, to input a desired purchase price of the mask product, on the basis of the examination data.

20 17. The method according to claim 12, further comprising:

allowing the mask buyer, through the purchase mediating section, to select, on the basis of the examination data, whether to re-manufacture the mask or  
25 not; and

instructing re-manufacture of the mask to the mask factory through the factory mediating section, when

re-manufacture of the mask is selected.

18. The method according to claim 12, further comprising:

5 allowing the mask buyer, through the purchase mediating section, to select, on the basis of the examination data, whether to buy the mask product or not; and

10 allowing the mask buyer, through the purchase mediating section, to select, on the basis of the examination data, whether to re-manufacture the mask or not,

wherein the mask buyer is allowed to select purchase of the mask and re-manufacture of the mask at the same time.

15 19. The method according to claim 18, further comprising allowing the mask buyer, through the purchase mediating section, to input a desired purchase price of the mask product, on the basis of the examination data.

20 20. The method according to claim 11, further comprising renewing the line information stored in the line information storing section with a latest line information, which is inputted through the factory mediating section every time a mask manufacture order  
25 is inputted.